MINI GRANT PROJECT SUMMARY

Please complete the project summary and return the completed form to April Snyder, Associate Administrator for the Institute on the Environment at aprilsnyder@umn.edu. Paper copies will not be accepted. Please also attach any photos, publications, brochures, event agendas or other materials that were a result of the mini grant summary.

Date of Report Submission: Thursday, April 24, 2014
Project Title: Conversation-E: Science + Art in Dialogue and Service to Sustainability

Project Context & Purpose
Please include the original project purpose statement and revise for any changes that occurred in the project after the start date with a short explanation of the changes.

Original project purpose statement:
This Mini Grant Proposal will support a new interdisciplinary pilot project called “Conversation-E: Science + Art in Dialogue and Service to Sustainability.” Conversation-E will engage artists, writers and scientists in conversation and exploration of the research at the Cloquet Forestry Center surrounding the issue of global climate change and its effects on the ecology of the climate-sensitive NE Minnesota forests. The results will include an art/literature/environmental education exhibition and panel discussion based on that collaborative work. This will transform Institute on the Environment’s commons lounge into an art/education gallery that inspires provocative and lively discussion—attractive to outside visitors and the media. The work will also be shown and presented at the Cloquet Forestry Center and encourage community involvement. The purpose of all this, beyond rich conversation and sharing of insights, is to find ways to engage the public with the work at Cloquet on issues of global climate change. Conversation-E is a pilot for how Institute on the Environment can creatively collaborate across disciplines and with outside partners to foster innovative and effective public outreach about the work of its researchers. The name, “Conversation-E,” is inspired by the roots: “convers-at-IonE,” pointing to the opportunity to expand the interdisciplinary conversations already at the Institute to better integrate the arts. The “E” is for Environment, one of the most critical conversations of our time.

Revised project purpose statement:
This Mini Grant Proposal will support a new interdisciplinary pilot project called “Conversation-E: Science + Art in Dialogue and Service to Sustainability.” Conversation-E will engage artists, writers and scientists in conversation and exploration of the research at the Cloquet Forestry Center surrounding the issue of global climate change and its effects on the ecology of the climate-sensitive NE Minnesota forests. The results will include an art/literature/environmental education exhibition and panel discussion based on that collaborative work. This will transform Institute on the Environment’s commons lounge into an art/education gallery that inspires provocative and lively discussion—attractive to outside visitors and the media. The purpose of all this, beyond rich conversation and sharing of insights, is to find ways to engage the public with the work at Cloquet on issues of global climate change. Conversation-E is a pilot for how Institute on the Environment can creatively collaborate across disciplines and with outside partners to foster innovative and effective public outreach about the work of its researchers. The name, “Conversation-E,” is inspired by the roots: “convers-at-IonE,” pointing to the opportunity to expand the
interdisciplinary conversations already at the Institute to better integrate the arts. The “E” is for Environment, one of the most critical conversations of our time.

Changes to project after the start date:

Changes Shown Above:
- There was not an art exhibit at Cloquet, due to prohibitive planning and travel costs given the modest budget and effort for other scope items. Instead a more extensive exhibit was held at IonE and a summary of the project was on display at Cloquet for their open house in fall.

Other Changes:
- Original budget was adjusted for higher ratio of expenses to effort, and adjustments were approved by IonE via email.
- Original budget included effort for both Jonee Brigham and Roslye Ulltan. Since community partner GATE was able to raise additional funds for the project, and since actual effort exceeded reimbursement available, Roslye Ulltan’s effort was reimbursed through GATE, and Jonee Brigham’s effort was reimbursed through the IonE budget in order to simplify paperwork. This change was described and approved with IonE by email.
- Additional Advisory Group Members were included to expand the original proposed list.
- Added scope to coordinate with Facilities/Energy Management on lighting retrofit described later.

Work Completed

Please provide a summary of the work that was completed for the mini grant project.

Planning Phase
- Team worked with Advisory group to get input on the design of the engagement process via phone calls and emails.
- A kick-off meeting was held at Cloquet Forestry Center. The whole team was invited, and many of the team were able to attend the meeting. The purpose was to get oriented to Cloquet Forestry Center clarify the vision of the project and plan the broader outreach. A new opportunity to engage with the Fond du Lac band was identified.
- To allow for added depth of exploration, a graduate course and extended workshop option was created around the one day open house workshop.

Outreach Phase
- The team communicated and promoted the workshop to gather participants from the arts, sciences, and larger community.
- A website (still active as of this writing) was created to document and share progress and outcomes of the project. http://conversation-e.blogspot.com

Workshop Phase
- The team held a workshop with project participants, and attendees from the public to exchange perspectives and engage in conversation around several topics including: a) global climate change and its local effects on NE Minnesota forest ecology and its surrounding communities, and current and future action needed, b) the role of the arts in cultural attitudes about environment, the role of the arts in responding to emerging issues in the environment. See workshop agenda, and documentation attached for more detail on the topics.

Synthesis/Exhibition Planning Phase
- The team conducted an informal workshop survey to identify lessons learned. The team extracted key themes from the workshop into posters to document highlights of the conversation.
- The issues from the workshop inspired and guided the development of the Art Exhibition, Tales of Environmental Turbulence: The Common Trail of Art & Science
• Art exhibition planning was completed including a call for submissions, reviewing submissions, and working with IonE and facilities to plan use of the spaces. Roslye Ultan curated the exhibition with assistance from Tanya Gravening (GATE) and Jonee Brigham.

• A new element was introduced in which the art exhibition expressed commitment to reducing climate change through a lighting controls strategy to harvest daylight, initiated by Jonee Brigham, and implemented by UMN facilities energy management. Brigham and Facilities collaborated on the content for the display panels.

Presentation Phase
• Install and open the exhibitions with an opening reception featuring a premier of a musical/dramatic performance.
• A panel discussion was held with three of the team leaders, Lewis Gilbert of IonE and one of the featured artists to continue and extend the conversation around key themes.
• Closure of the exhibition and de-installation took place January 6th, 2013

Closure Phase
• The team reflected on the success of the project with IonE and began planning discussions to conduct an expanded version of the exhibition, incorporating lessons learned and planning for appropriate funding.
• This report was completed to document project activities for Institute on the Environment record keeping.

Partnerships & Collaborations
Please provide a summary of the project personnel, partnerships and collaborations that worked directly on the project or were started as a direct result of the mini grant project.

Conversation-E: Science + Art in Dialogue and Service to Sustainability is made possible by a mini-grant from the University of Minnesota Institute on the Environment, with additional funding from GATE (Greening & Art Together Evolving) a project community partner, and by in-kind time offered by the Project's Leaders and Advisory Group.

Interdisciplinary Project Team

Project Leaders

• Jonée Kulman Brigham, Research Coordinator Center for Sustainable Building Research, MS-Sustainable Design Faculty, College of Design, Associate Fellow, Institute on the Environment, Co-Founder of GATE
• Roslye Ultan, Liberal Studies Senior Faculty, Independent Curator, Board member, Minnesota Association of Environmental Education, Director and Co-Founder of GATE
• Peter Reich, Department of Forest Resources, Regents Professor Distinguished McKnight University Professor, F.B. Hubachek, Sr. Chair in Forest Ecology and Tree Physiology, Resident Fellow, Institute on the Environment
• Rebecca A. Montgomery, Associate Professor, Department of Forest Resources

Advisory Group Members

• Julie Athman Ernst, Associate Professor, Director of Master of Environmental Education Program, Center for Environmental Education, University of MN Duluth
Facilities Management/ Energy Management/ Communications Lighting and Energy Star Liaisons

- Amy Short
- Stacey White
- Alicia Phillips
- Chris Kelleher
- Daniel Loehmann

Other relationships

- Cloquet workshop speakers in addition to members of the team above. These speakers came from the University and Broader Community, including members of the Fond du Lac Band of Chippewa
  (See Workshop speaker list attached.)
- Artists whose work was included in the art exhibition
  (See artists list attached.)

Project Outcomes

*Please provide a summary of the outcomes of the mini grant project including future plans for the project.*

**Target outcomes from original proposal that were achieved:**

- Conversation-E will: enhance the communication and outreach of forest ecology research at the U of MN
- Create a diverse social network that bridges sectors and disciplines that do not often connect with each other
- Improve the environmental literacy of participants
- Offer each participant and the public a wide range of ways to look at global climate change and forest ecology
- Combine rich scientific knowledge with rich aesthetic and emotional exploration to appeal to the whole person in motivating and informing their concern and impact on climate change
- As a pilot, the lessons learned from this process will inform potential future applications at I on E and elsewhere.
- Additionally, the Mini Grant will foster connections among faculty, students and outside partners around common missions to promote eco-literacy, environmental citizenship, and action.
Energy/Climate Change Improvements and Communication Outcome

- To express, through actions, constructive changes that help mitigate climate change, PI, Brigham, contacted Facilities Management and Energy Management to see if the electric lights that are in the LES building atrium (in which IonE resides) could be changed so that they are controlled based on available daylight, thus saving unneeded electricity and associated CO2 emissions (as well as energy costs) during the daytime. **The goal was to time the improvement with the opening of the art exhibition, as an energy-aesthetic of conservation.** Energy Management responded with an assessment of feasibility and cost effectiveness and implemented the change. Brigham worked with Energy Management and their Communications team on educational signage they produced in time for the exhibition.

  - **DETAIL:** 76 existing lighting fixtures in the Learning and Environmental Sciences building were connected to a relay that is controlled by photocell that is located on the roof of the Biological Sciences building. The photocell measures the light levels outdoors. The relay is programmed by a control system to turn the lights off when the light levels outside reach 1000lx. Any level below 1000lx will turn the lights back on inside the atrium and hallways.

    >>>This resulted in:

    - Monetary Savings of: $3800/yr;
    - Energy Savings 46600 kwh/yr
    - Savings of 39 Mton/yr CO2 to help reduce climate change impacts
    - all at a Cost of: $1500 which will pay for itself in less than one year.

- The contact with Facilities also resulted in deciding to time the presentation of an Energy Star plaque for the LES building (already earned before the lighting improvement) with the opening reception of the art exhibition.

Other Outcomes

- A project website was created, and will remain online for at least a year after the project is completed. [http://conversation-e.blogspot.com](http://conversation-e.blogspot.com)
- Articles promoting and documenting the project were written on the project blog and in other media venues. See attachments list, later.

ADDITIONAL OUTCOME NARRATIVES BY TEAM MEMBERS:

From Roslye Ultan, Conversation-E Co-Leader, and Curator of Conversation-E Art Exhibition

PROJECT OUTCOMES/OBSERVATIONS & COMMENTS

Conversation-E 2013 on the topic of climate change, Forest Trails & Tales, explored the intersection of the arts and sciences. The project began with introductory sessions and workshops in the U of MN/Cloquet Forestry Center and made its concluding statement in an exhibition at the IonE Gallery & Atrium from October 17, 2013-January 6,2014 which was titled Tales of Environmental Turbulence: The Common Trail of Art and Science. The exhibition was composed of 24 artists drawing on multi/mixed-media work from traditional paintings to performance to installations designed into the gallery and atrium spaces. Not only did this show transform the space into a lively place to gather and engage in conversation but brought together over 60 works of art that demonstrated the intersection of art/science coming from an aesthetic point of view on the critical environmental concerns of climate change. The art/artists combined their keen aesthetic perceptions through a lens that goes beyond factual data into the realm of the senses with knowledge of scientific evidences; therefore acting as translators of complex scientific information that had an immediate connection with audiences/viewers both inside and outside of the environmental communities. The power of this exhibition encouraged audiences to engage with one another through a inter/transdisciplinary perspective. A Roundtable discussion with environmental scientists, artists and curators was held at the IonE for faculty, students guests for further opportunities to inquire and deepen insights. When scientific studies can be expressed with an emotional/sensate response messages/information ignites awareness/consciousness for potential action -- this exhibition was successful in accomplishing such a goal.
The successful impact of Conversation-E 2013 will continue to explore the vital advantage of the intersection of sciences/arts as a communication tool for sustainable behavior/involvement in Conversation-E 2014-15 (Mini Grant/IonE) Sustainable Acts: Mother Earth’s Embrace

From Carrie Pike, Conversation-E Cloquet Site Host and Advisory Group Member:

To: Jonee Brigham, Roslye Ultan
From: Carrie Pike, Research Associate
RE: Reflection on Conversation-E
Date: April 18, 2014

Early in my tenure as Interim Director of Operations of the Cloquet Forestry Center (CFC), a post I held from January 1 2012 through August 25, 2013, I learned that a series of policies related to land-use at the CFC had severely eroded the relationship between the UM and the Fond du Lac Indian tribe. The 3800 acres of land at the CFC reside entirely within the boundaries of the Fond du Lac reservation. Tribal members felt strongly that their federally-granted treaty rights to land access had been renounced by UM policies that had been developed to quell vandalism and reduce interference with forest research. I quickly sought to learn more about the origin of the controversial policies so that I could mitigate the tense relationship that had formed. I was initially reluctant to make sweeping changes to the facility’s policies on forest access since my time as director was limited, and I did not want to develop policies that would hurt future research or teaching efforts. As a researcher, I was sympathetic to the value of long-term research and the need to protect its integrity. As a citizen, I was sympathetic to land-use rights, and sensitive to the negative perceptions linked to the University’s presence in our community. I sought guidance from within and outside the University of Minnesota to strike a balance in policy and land-use to improve relations without compromising the mission of CFC.

I was approached by Jonee Brigham and others about the submission of a mini-grant to support an effort nicknamed “Conversation-E,” a collaboration of art and science to promote education and communication at the CFC regarding climate change and relations with Fond du Lac tribe. The CFC is home to an extensive research project on climate warming, so the incorporation of climate change research seemed a natural fit for the facility. This integration of art with science could only have originated from minds of creative individuals on campus in departments outside the reach of empirical science. The mini-grant funding provided a platform for information-sharing across colleges and disciplines in our vast university, and facilitated discussions on taboo subjects.

The weekend workshop, which served as the pinnacle of Conversation-E for the CFC, produced a number of direct or indirect tangible outcomes. These included

1) taking undergraduate students to the cultural museum at Fond du Lac during their forestry-field days session at CFC,
2) removal of controversial “No Trespassing” signs from the property’s perimeter,
3) a weekend retreat by a music group to the CFC to explore science and art, and
4) the development of plans for the construction of a new bridge to join hiking trails at the Fond du Lac school with the forest trails at the CFC.

We remain grateful for the validation and support for policy changes and improvement in communication that resulted, in part, from this unique and inspired collaboration.
The following list of attachments help document the project and supplement discussions above:

**Advisory Group Kick off Meeting at Cloquet Forestry Center**
- Agenda
  CONV-E-KO-Agenda.pdf

**Conversation-E Cloquet Workshop:**
**Forest Trails and Forest Tales: Exploring Place, Story, and Climate Change at the Cloquet Forestry Center**
- Promotional Flyer for Cloquet Open House
  FOREST TRAILS PUBLIC EVENT-ver5-22.pdf
- Promotional Flyer for Cloquet Workshop
  FOREST TRAILS WORKSHOP-5-21.pdf
- Promotional Blog Post for Cloquet Workshop
  CDES post.pdf
- Preliminary Speaker List with Bios
  FOREST TRAILS EVENT-bios2.pdf
- Final Short Speakers list from Cloquet Workshop
  Forest Trails Presenter List.pdf
- Cloquet Workshop Agenda (portions were changed to adapt to meeting dynamics)
  FOREST TRAILS EVENT-FINAL.pdf
- IonE (Eye on Earth) Blog Post by Brigham summarizing Cloquet Workshop
  I on E Blog.pdf
- Set of Four Posters with summary themes and images from Cloquet Workshop that were used in the Exhibition, at Cloquet for display, and used by Carrie Pike at the diversity conference.
  Conv-E Poster-set.pdf

**Exhibition:**
**Tales of Environmental Turbulence: The Common Trail of Art and Science**
- Invitation/ Promotional Card for Exhibition
  Tales_of_E_Turb_evite.pdf
- Exhibition Press Release Statement
  Turbulence Release statement.pdf
- Curatorial Statement
  Turbulence Curatorial statement.pdf
- Artists Statements
  Turbulence common Trails artist statements.pdf
- Opening Event Description, including live performance
  Turbulence opening event.pdf